Product size and connectors may vary depending on configuration

TrainWise® Ethernet Vehicle Switch

The TrainWise® Ethernet Vehicle Switch (NT08) is a managed 14-port Ethernet switch that interconnects vehicle systems. The Quality of Service feature provides network traffic prioritization for improved network performance and better handling of time-sensitive data.

The NT08 is VLAN configurable for improved network performance and security through logical segmentation and isolation of network traffic. RPTP affords path redundancy with rapid healing to decrease downtime due to connection failures.

SNMP and web browser access plus port mirroring provide a range of monitoring and configuration options.

Technical compliance

Railway standards	Compliant with IEEE and IEC rail design standards (including IEEE 16 and IEC60571/ EN50155) IEC 61375-3-4 Electronic railway equipment – Train communication network (TCN) – Part 3-4: Ethernet Consist Network (ECN)
Fire, smoke and toxicity	Compliant to 49 CFR Part 238.103 guidelines and NFPA-130

Options

Gbps ports	The NT08 is optionally available with 3 x Gbps ports and 11 x 100 Mbps ports

Electrical interfaces

Power supply	1	Operating voltage range: 16VDC – 90VDC
Power consumption		25 Watts (approximate)
Configuration input	4	Self-powered, jumpered in vehicle interface connector cable plug to define unit location or other identification
Status output	1	Form A, 0.5 Amp, normally open, solid state output
Status LEDS	✓	Power, Health, Link/Activity

Mechanical characteristics

Dimensions	10 in x 7 in x 4 in (25.4 cm x 17.8 cm x 10.2 cm) (approximate, including mounting flange)
Weight	4 lb (1.8 kg) (approximate)
Connectors	Ethernet: 14 x M12 D-coded; Power/Config: 2 x M12 A-coded; 1 x M8
Ingress protection	IP30

Environmental conditions

Operating temperature	-40°F to +158°F (-40°C to +70°C)
Storage temperature	-40°F to +185°F (-40°C to +85°C)
Shock and vibration	IEC 61373; Category 1, Class A
Dielectric withstand	1.15kVAC circuit to circuit and circuit to chassis

Protocols and features

Virtual networking	Virtual Local Area Network (VLAN) 802.1Q
Traffic prioritization	Quality of Service (QoS) 802.1p
Redundancy	Rapid Spanning Tree Protocol (RSTP) 802.1w
Monitoring	Simple Network Management Protocol (SNMP); port mirroring
Configuration	Web-browser; SNMP

Electromagnetic compatibility

Surge immunity	IEC 62236-3-2, Table 7
Conducted emissions	IEC 62236-3-2, Table 3, 4, & 5
Conducted immunity	IEC 62236-3-2, Table 7 & 8
Radiated emissions	IEC 62236-3-2, Table 6
Radiated immunity	IEC 62236-3-2, Table 9 (with RF susceptibility verified to 6 GHz)
Electrical fast transient	IEC 62236-3-2, Table 7 & 8
Electrostatic discharge	IEC 62236-3-2, Table 9

P 1-250-656-6677 E contact@questertangent.com QuesterTangent.com
6710 Bertram Place, Saanichton, British Columbia V8M 1Z6 Canada